CHARLES L. THOEMING
ATTORNEY & COUNSELOR AT LAW
REGISTERED PATENT ATTORNEY

BIELEN, LAMPE & THOEMING, P.A.
TWO CORPORATE CENTRE
1390 WILLOW PASS ROAD
SUITE 1020
CONCORD, CA 94520

(925) 288.9720 ☎
(925) 288.9731 FAX
hadvbaxen@earthlink.net EMAIL

ADMITTED TO PRACTICE
IN CALIFORNIA AND TEXAS

FACSIMILE COMMUNICATION COVERSHEET

DATE: December 5, 2005

CLIENT NO.: 11103

FACSIMILE NO.: (571)273.8300

TO: **MAIL STPO AF**
COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

FROM: Charles L. Thoeming

NO. OF PAGES: (including this coversheet) Thirteen (13)

COMMENTS:

Filed under cover of this coversheet for Application Serial No. 10/691,414 are: 1) Facsimile Coversheet; 2) Transmittal; 3) PTO-2038; 4) Notice of Appeal [O + 1 copy](4 pages total); 5) PTO/SB/33; and Argument for Pre-Appeal Brief Request (5 pages) for a total of thirteen (13) pages.

Respectfully submitted
/Charles L. Thoeming/
Charles L. Thoeming
Registration No. 43,951

PTO/SB/21 (09-04)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/691,414
Filing Date	10/22/2003
First Named Inventor	ANDREW NUSS
Art Unit	2192
Examiner Name	ANDRE R. FOWLKES

Total Number of Pages in This Submission	13	Attorney Docket Number	11103

ENCLOSURES   *(Check all that apply)*

☐ Fee Transmittal Form
  ☐ Fee Attached
☐ Amendment/Reply
  ☐ After Final
  ☐ Affidavits/declaration(s)
☐ Extension of Time Request
☐ Express Abandonment Request
☐ Information Disclosure Statement
☐ Certified Copy of Priority Document(s)
☐ Reply to Missing Parts/ Incomplete Application
  ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53

☐ Drawing(s)
☐ Licensing-related Papers
☐ Petition
☐ Petition to Convert to a Provisional Application
☐ Power of Attorney, Revocation Change of Correspondence Address
☐ Terminal Disclaimer
☐ Request for Refund
☐ CD, Number of CD(s) _____
  ☐ Landscape Table on CD
Remarks

☐ After Allowance Communication to TC
☐ Appeal Communication to Board of Appeals and Interferences
☑ Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
☐ Proprietary Information
☐ Status Letter
☑ Other Enclosure(s) (please identify below):

1) PTO-2038; 2) PTO/SB/33; 3) ARGUMENT FOR PRE-APPEAL BREIF REVIEW; 4) FAX COVERSHEET; and 5) Copy of NOTICE OF APPEAL

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	CHARLES L. THOEMING/Bielen, Lampe & Thoeming, P.A.
Signature	/CHARLES L. THOEMING/
Printed name	CHARLES L. THOEMING
Date	5 DECEMBER 2005

Reg. No.	43,951

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	/CHARLES L. THOEMING/		
Typed or printed name	CHARLES L. THOEMING	Date	5 DECEMBER 2005

Doc Code: AP.PRE.REQ

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional) 11103	

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on ___Faxed on 12/05/2005_____

Signature__/Charles L. Thoeming/_____

Typed or printed name ____Charles L. Thoeming____

Application Number	Filed
10/691,414	10/22/2003

First Named Inventor
ANDREW NUSS

Art Unit	Examiner
2192	Andre R. Fowlkes

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
    Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. 43,951
Registration number ____

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 ____

_/Charles L. Thoeming/_____
Signature
Charles L. Thoeming
Typed or printed name

925.288.9720
Telephone number

12/05/2005
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of _One (1)_ forms are submitted.

APPLICANT'S REASONS FOR WHICH
PRE-APPEAL BRIEF REQUEST FOR REVIEW
IS BEING SUBMITTED WITH NOTICE OF APPEAL

In re application of: **Alderson, David H.**

Filed: **10/22/2003**

For: **Grammar for Regular Expressions**

Examiner: **Andre R. Fowlkes**

Application No.: **10/691,414**

First Named Inventor: **Nuss, Andrew**

Group No.: **2192**

Mail Stop AF
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Examiner's final rejection of claims 58 - 83 under 35 U.S.C. §102(b) is founded on one reference -- Friedl, "Mastering Regular Expressions," 2ND Ed., ISBN: 0-596-00289-0, and three reference points therein per the Examiner: pages 4:14-17; 33:1-4; and 38:2-4. These references actually correspond respectively to page 1 of the Friedl book, to the opening paragraph of Chapter 8 from Friedl on Java regexes, and to the opening paragraph of Chapter 9 from Friedl on .NET regexes. The three references are only general statements to the following effect: (1) regex engines transform ("spindle" and "mutilate") data, (2) Java has incorporated support for regexes, (3) .NET has incorporated support for regexes. In no way do these citations describe any particular grammatical power of a particular engine, and therefore impinge on the Applicant's claims **only** in that the Applicant's invention falls into the broad category of regex-grammar and engine, as do .NET and Java (among others). Most telling is that the Examiner primarily relies upon the first citation, appearing on page 1 of the book, which states the general purpose of a regex engine. For each rejected claim, the Examiner sprinkles in one or more of these opaque reference points from Friedl as a basis for a §102(b) rejection arguing that "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States."

Based on the citations offered by the Examiner as a basis for rejection, it is apparent that the Examiner believes the invention to be equivalent in purpose to existing regex engines in the art, such as those offered by .NET and Java. However, the inventor's claims, both individually

1

and collectively, do not claim the purpose of a regex engine, but instead claim specific grammatical powers not offered by any other regex engine. To establish equivalence, the Examiner must do much more than state that the purpose of the invention is equivalent to the purpose of prior art engines, but must show that the specific claimed powers are elsewhere offered. That they are not elsewhere offered is in fact demonstrated in the rebuttal to the first office action by an in-depth study of the Friedl text, supplied in the analysis of individual claims, showing claim by claim that the grammatical power and/or method of implementation is non-equivalent to prior art.

The claims of the invention focus on specific areas of regexes -- side-effects, regex encapsulations, and the subjunctive grammar forms. The job of rejecting individual claims entails showing how the claimed grammatical powers of regex forms in the invention already exist and is **not** accomplished by stating that "regular expressions can add, remove, isolate, and generally fold, spindle, and mutilate all kinds of text and data." The **power** of a grammatical form of a regex goes beyond its purpose, and includes the aspect of programmer enablement. A grammatical form of a regex is non-equivalent, and therefore novel, and unanticipated, if its matching characteristics and/or side-effect characteristics cannot be emulated by grammars of other regex engines. In no single claim is it claimed by the inventor that the invention is the first to "add, remove, isolate, and generally fold, spindle, and mutilate all kinds of text and data." Instead, specific grammar forms are claimed by the inventor as having specific powers. Certainly, when properly employed by the programmer, these grammar forms and the invention in general allow the "folding, spindling, and mutilating" of data, but the general purpose of a regex engine is in no way claimed by the inventor. Again, the Examiner has merely cited the general purpose of a regex engine against the inventor's claims. The inventor, however, is not attempting to "reinvent" the concept of regexes, but is in fact extending the prior art of regexes by offering new grammatical powers, additionally evidenced by new methods of implementation.

In terms of the possibility that the collective of claims is equivalent in power to any regex grammar and engine described in Friedl, such would be an approach naturally taken by a skeptic, but the proof would not consist of quoting a reference which states the general purpose of a regex engine. That the claims extend the art is consistent with the thesis that the grammatical powers of the invention are not found in the art, and this position is well supported in the rebuttal made by the inventor to the first office action, and this position is shown in the remainder of this correspondence not to be supported by the Examiner citations. The Examiner seemingly believes the disclosed and claimed grammar forms are equivalent to the cited Friedl

2

reference; however, there is no detail in Friedl for the grammar of the present invention as disclosed and claimed. To show that an invention has not extended the art of regular expressions, one must do more than provide one citation that loosely defines a regex engine, plus two more citations that state that two particular regex engines exist (.NET and Java). Mere glittering generality assertion of similar intended purpose between a reference and an Applicant's claims does not meet any level of equivalence to satisfy the requirements of 35 U.S.C. §102(b).

Concerning the overall impact of the inventor's claims, Applicant submits that the primary Friedl reference merely describes the purpose of a regex engine, and that the supplemental references indicate that Java and .NET provide regex engine support. Hypothetically, if an invention disclosed and claimed regexes that rehashed Perl's grammar (representative of the current state of the art), without providing any new grammatical powers (features), such non-novelty could not be demonstrated by a reference that merely establishes the purpose of a regex engine. The Examiner would necessarily need to demonstrate on a claim-by-claim basis that the grammatical power offered by the hypothetical engine is also offered by Perl or the equivalent, without substantial differences. Instead, in the final rejection of claims 58 - 83, the Examiner quotes the Friedl reference that defines only the goals of a regex engine as reason for rejecting the particular grammatical advantage as disclosed and claimed.

Claims 58 - 83 do not rehash Perl, as do the other significant regex engines in the art (demonstrated by the Friedl reference). On the contrary, the invention extends the grammatical concept of side-effects, which is shown in the specification and supported in Applicant's rebuttal to the Examiner's reasoning in the first office action by an in depth study and comparison of the Friedl reference (using citations well into the Friedl reference). The invention of claims 58 - 83 applies the concept of side-effects to the subjunctive grammar form, which is not offered by any other regex engine. Further, the invention extends the grammatical powers of capture and (Perl) code-assertions in a variety of claimed ways. The invention of claims 58 - 83 extends the idea of regex encapsulation (offered only by Perl) to allow parameterization of such encapsulations (**parameterization not offered by Perl**).

The invention of claims 58 - 83, as related to the grammars of side-effects, the subjunctive, and parameterizable rules, is not elsewhere offered in the art. To demonstrate the contrary, one would have to show by specific citation that such grammar forms do elsewhere exist, and with equivalent power, or that such grammar forms add no grammatical advantage to warrant invention. Otherwise, if easily created, they would already exist in Perl. Instead, the

3

Friedl reference comments on an aspect of the art which he states would be advantageous if offered by Perl, namely the scoping of variables to code-assertions (similar to the DoPattem of the invention), first accomplished by the invention. Moreover, to establish that the grammar forms of invention of claims 58 - 83 do not appreciably enable a regex programmer to accomplish new expressions, the Friedl citation(s) fails as a 35 U.S.C. 102(b) reference, since it serves only to define the landscape. For example, the invention shows the usefulness of allowing encapsulations of regexes to be parameterizable. The invention of claims 69 - 75 shows how it is accomplished. The Friedl text does not disclose or otherwise teach such a feature as being possible. The Examiner does not address this specific feature. If properly considered, the Examiner would have to cite the Friedl reference that discusses "regex objects." It would then be apparent that the novelty afforded by the encapsulated regexes of claims 69 - 75 is their parameterizability. Just as functions in all programming languages derive their remarkable reusability from parameters, the encapsulated regexes of the invention derive remarkable reusability from parameters. Yet the Examiner does not cite the existence of parameterizable regex encapsulations outside of the invention, nor does such exist.

The Examiner's logic in using a page 1 reference from Friedl to finally reject claims 58 – 83, if extended to other software, would seemingly bar advancements in the art of designing optimizing compilers by a citation from page 1 of a text on compiler design which merely makes a sweeping summary of the goal of optimizing compilers. Yet such inventions abound, claims thereto are allowed by the US patent office, and said claims issue as U.S. patents.

Applicant has further concern regarding the degree of examination presented by the final rejection of Claims 58 - 83. For example, in each claim rejection the Examiner references operator overloading (even underlined three times!), when all references to adapting C operators were withdrawn in the amended claim set. Although the idea of adapting C expression operators to regex composition is novel to the invention, these claims were withdrawn as the Examiner interpreted operator adapting as true overloading as found in C++ and C#. The Examiner's concluding remarks state that the "added limitations on which the Applicant relies" are fully addressed. Applicant's rebuttal performed adequate analysis for the Examiner to grasp the distinctions relative to Perl and related NFA engines. This rebuttal was seemingly ignored, as evidenced by 1) the Examiner's failure to notice that what he interpreted as operator overloading claims were withdrawn from the amended claim set, 2) individual final rejections all based on a general remark by Friedl as to the purpose of a regex engine, and 3) no individual final rejection that addresses the intrinsic grammatical power(s) as disclosed and claimed.

4

In summary, (1) the citations given by the Examiner from Friedl are too general to be used as the basis for rejection of any claim whatsoever, much less for 35 U.S.C. §102(b), (2) the Examiner did not notice the withdrawal of claims related to operator adapting, evidencing a lack of study of the rebuttal and amended claims, (3) the remarkable power of parameterizable encapsulations of regexes is not offered anywhere outside of the invention, evidencing either the Examiner's failure to understand the invention, or the Examiner's inadequate understanding of the art. Moreover, if the Examiner were a Perl and/or Friedl reference expert, then rejected claims 58 – 83 would be anticipated only by detailed references deep in the Friedl text (there are none). The lack of such references conclusively indicates that examination should be reopened.

Dated: December 5, 2005.

Respectfully submitted,
/Charles L. Thoeming/
Charles L. Thoeming
Registration No. 43,951

BIELEN, LAMPE & THOEMING, P.A.
1390 Willow Pass Road
Suite 1020
Concord, CA 94520
(925)288.9720
(925)288.9731 Facsimile

Certificate of Transmission

I hereby certify that this correspondence and all related papers as itemized hereunder are being sent by facsimile transmission to 571.273.8300 under a facsimile coversheet addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on December 5, 2005.

Related Papers: PTO-2038 [1 page]
                  PTO/SB/21 [1 page]
                  PTO/SB/33 [1 page]
                  Original and One (1) Copy of Notice of Appeal [4 pages total]
                  Facsimile Coversheet [1 page]

/Charles L. Thoeming/
Charles L. Thoeming, Registered Representative of
    Applicant
Registration No. 43,951

5